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ABSTRACT

Noting that research examining the SQ3R study strategy has raised more questions than it has answered, this paper presents a review of such research, taken from the ERIC database, "Psych Abstracts," and "Dissertation Abstracts." The paper divides the studies by educational level: elementary, junior and senior high school, and college/university. It concludes with observations based on the studies examined, including the following: (1) the SQ3R strategy develops main idea comprehension skills; (2) SQ3R is less effective than other strategies, such as underlining and an SQ Recite modification; (3) the research methodology in some of the studies made the interpretation of the results questionable; (4) lack of long term follow-up made questionable the conclusions regarding retention of material; and (5) there is a paucity of research examining the effects of SQ3R with beginning readers. (HTH)

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SQ3R - MYTH OR SOUND PROCEDURE

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ABSTRACT This paper presents the significant research available on the SQ3R study system. This research is categorized according to elementary, junior and senior high, and College/ University levels. Observations and a bibliography are included.

SQ3R - MYTH OR SOUND PROCEDURE?

SQ3R is frequently promoted as an effective strategy for comprehending expository material. The majority of Reading and Study Skill textbooks for the secondary and college-level students at least mention the strategy and in many cases devote entire chapters to its treatment. If the frequency of its inclusion as an effective strategy in texts is to be an index of its utility and effectiveness, then the assumption would have to be that it is highly effective. Unfortunately the research which has been conducted since 1953 has produced mixed results. Rather than generating clear evidence supporting its effectiveness, the research has raised more questions than it has answered.

This review focused on the concern expressed in other articles, i.e., Johns & McNamara (1980), which indicated a lack of research supporting the SQ3R strategy. However, the comprehensiveness of these former articles was open to question. To add to the understanding of the effectiveness of the strategy, the present authors undertook an extensive review of SQ3R research. The studies included in this review were obtained through a comprehensive search utilizing the ERIC Database, Psych Abstracts, and Dissertation Abstracts. The results of this review are presented in the following table. Studies are presented by level, i.e., elementary, junior & senior high school, and college/university.

RESEARCHER	METHOD	SUBJECTS	FINDINGS
	Elementary		
BRAZEE (1979)	Social Studies-stressed survey step of SQ3R. SQ3R & rate flexibility taught 10 min daily for 7 weeks	2 classes 20-6th graders in each	SQ3R group better in comprehension & less wd by wd reading. However, study was contaminated
FERRANTE-ALEXANDER (1983)	Varied SQ3R with direct instruction. 17 weeks with 35 hours per subject. Retelling was criterion	4 LD children in 4, 5 & 6th grades	Study skill instruction improved retelling
	Junior & Senior High School		
DONALD, Sr. M. (1967)	2 groups. 1 trained in SQ3R	62-7th grade students in classes	S.D. on Teacher-made tests but not on Ach. Test. Favored SQ3R
HARRIS & TRUJILLO (1975)	3 groups: a) SQ3R & self-image; b) Discussion group; c) Control	Junior High 22-s/manage 41-discuss	SQ3R & Dis. had better GPA than control
McNAMARA (1977)	3 methods: a) Cloze; b) Modified SQ3R; c) Lect/discussion. Counterbalanced Design, Trained 7 days incl. pre & post tests	309 High Sch. pupils	Tch/made 50 item M/C test. No S.D.
STOODT & BALBO (1979)	2 groups: a) Study Skills including SQ3R; b) Control	2-12th grade Econ classes	Group A better than control

POWELL & ZALUD (1982)	Adapted SQ3R worksheets used. Study lasted 18 weeks	16 subjects-age 15-19 - LD or mentally handicapped	Overall GPA on worksheets up 9-17 pts. (No statistical treatment.)
	College/University		
WOOSTER (1953)	Quarter-length course. Ss did assign using SQ3R	29 University students	No S.D. in rate or comprehen. Large change in note quality. Few Ss. used SQ3R as an integrated system.
WILMORE (1966)	4 Groups: a) Reading; b) Underlining; c) Outlining; d) SQ3R	80 College students in 4 classes	Underlining faster than SQ3R or outlining. SQ3R better than outlining.
NIPLE (1968)	4 groups: a) Read once (control); b) Use own method; c) Use SQ3R after reading about it; d) Use SQ3R after practicing for 6 weeks	35 in each group-college students	No diff. on Immediate or delayed comp. S.D. favored SQ3R with training on MAIN items. No diff. on DETAIL
BRIGGS et al. (1971)	Ss. taught conditioning (Premack Method) and SQ3R. 2 groups - Exper. & control (10 each).	20 high risk college freshman girls on academic probation	Exper. group had higher mean GPA S.D. at .05.
BENEKE & HARRIS (1972)	2 groups: a) Groups instr. of study skills with 4 SQ3R lessons; b) indiv. instr. at own rate	38 College students	No S.D. b/t groups
DIGGS (1972)	5 groups: a) SQ3R; b) Mechanized approach; c) Mech followed by SQ3R; d) SQ3R followed by Mech; e) Control	80 community college stud.	SQ3R superior on various measures
HOLMES (1972)	2 groups: a) underlining; b) SQ3R	41 College students in 3 sections	No. S.D. diff found

GURROLA (1974)	4 groups: a) SQ3R; b) SQRR; c) SQR; d) QR	68 College Freshmen	SQRR more efficient than SQR
SCAPPATICI (1977)	3 groups: a) SQ3R; b) Select & Recite; c) Control	109 college students in Econ classes	No effect on final Econ grade. SQ3R used more than S & R Method
EANET (1978)	3 groups: a) REAP; b) SQ3R & related skills 4 wks instruction & post-test in 6th wk. Study centered on annotation step of REAP	105 college students	REAP useful & used. Impulsive cog. style may profit most from REAP. Overall results did not seem to favor any single group
ORLANDO (1978)	3 groups: a) SMS (modified SQ3R); b) Reading Skills (RS); c) Control (CS) 5 weeks - met twice weekly for 75 minute periods	Volunteer college students specially admitted to Penn State	SMS group generally better on most measures.
OKEY (1979)	3 groups: a) modified SQ3R; b) Cornell Method; c) Control	160 college students	No S.D. b/t modified SQ3R & Cornell Method. Found some significant interactions with locus of control & methods

(Researcher felt instruction time too low for sustained gains and study was prejudiced by disclosure of all methods to all subjects.)

HAISLETTE (1980)	Behavioral contracting effect on Study Skill development. 2 main groups: a) public commitment; b) Private commitment	Frosh/Soph students with GPAs below 1.99	No S.D. found
BUTLER (1981)	SQ3R taught as one of several techniques	115 Community college students	Increase in course achievement
MARTIN (1983)	Centered on self-questioning of three study techniques: a) SQ3R; b) Self-questioning; c) REAP	95 college students	Found REAP & Self-questioning were significantly different from SQ3R but meaning is unclear.

OBSERVATIONS

1. Training in the use of the SQ3R strategy seemed to positively affect learner outcomes. However, descriptions of the training included in the studies were quite sketchy to the point of being non-replicable in most cases.

2. Main idea comprehension skills are developed using the SQ3R strategy (Niple, 1968).

3. In comparison with other study strategies, such as underlining (Wilmore, 1966) and a modification - SQ Recite (Gurrola, 1974), SQ3R was found to be less effective.

4. In several studies the control group treatment which involved reading and/or rereading only was found to be more effective than SQ3R.

5. The nature of the research methodology used in some of the studies makes the interpretation of the results questionable.

   a. It is difficult to generalize SQ3R treatment effects when the strategy is included in a smorgasbord of other study skills.

   b. Great differences in the amount of training in the SQ3R studies creates confusion regarding the question of how much training is necessary to actually change study behavior.

   c. Lack of long-term follow-up makes conclusions regarding retention of material questionable.

   d. The reliability of the measurement instruments used in the pre- and post-testing was frequently not indicated.

   e. There is a paucity of research examining the effects of the use of SQ3R with early readers.

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